

# **Preparing for the worst – promoting safety behaviours in antenatal care among Norwegian, Pakistani and Somali pregnant women. A randomised controlled trial**

## **Protocol**

**29<sup>th</sup> December 2017**

### **1. Relevance relative to the call for proposal**

Our project answers to the call for intervention projects. We will develop an intervention to promote safety behaviours among pregnant women suffering violence. For too long, pregnant women's needs, when living in an unsafe environment, have been overlooked. More women die at the hand of their partner/former partner, than from pregnancy and birth related complications in Norway ([www.politi.no/kripos/statistikk/drap](http://www.politi.no/kripos/statistikk/drap)) (1). Intimate partner violence (IPV) is a risk for numerous adverse outcomes of pregnancy (2-4). Little is known as to how to assess and intervene and hence potentially prevent adverse outcomes for mother and child (5). Although IPV occurs in all social strata, women with low education, women with limited economic resources and women with subordinated positions compared to men are at higher risk (6). Immigrant women are likely to be overrepresented in these groups; hence they are more prone to be exposed to IPV (6). In Norwegian crisis shelters, immigrant women are overrepresented (7).

In Norway, midwives and family doctors within the community provide most of the antenatal care. Almost all pregnant women attend these services. This provides a unique opportunity for community health workers to identify women at risk and provide them with the help they need. New guidelines in Norway instruct health professionals to routinely ask all pregnant women about their experience of violence (8). Enquiring and responding appropriately is not an easy task for community midwives and family doctors.

Our project aims at assisting midwives and doctors in the community to ask about violence, through providing them with additional education about violence and ensuring they have established contact with other first line community services such as social workers, legal advisors, crisis centres and the police. In order to accomplish this, we will organise meetings and short courses. We will, in collaboration with women who have been pregnant and have suffered violence as well as health workers, adapt a screening tool for violence for women who read and speak Norwegian, English, Urdu and Somali. In addition, we will develop a video that promotes culturally adapted safety behaviours for the three language groups, involving both users and providers of the services as well as experts in the field, for example professionals from the crisis centres. Our intervention of staff training, a screening tool, and a safety promoting video aims to reduce violence and its consequences. Including not only Norwegian women but also those with an immigrant background contributes to reducing social differences in healthcare.

### **2. Background and status of knowledge**

In 2014, a political decision to ask all pregnant women about prior or on going exposure to violence during antenatal care was made in Norway (8). It is the community midwives and family doctors that initially meet pregnant women thus are responsible to ask about violence. It is suggested that a simple assessment for violence and offering of referrals has the potential to interrupt and prevent recurrence of IPV (9) and that teaching victims relevant ways of promoting their safety has the potential to reduce IPV and associated trauma (10). Despite guidelines on how to examine exposure

to violence, studies have shown that it is difficult to implement questions about violence in clinical practise (11, 12). There is also little evidence that supports effective interventions (13) and this project aim to address this knowledge gap.

### **What and how big is the problem?**

Violence against women is a phenomenon that persists in all countries (14). It encompasses a range of different form of violence like female genital mutilation, honour killings, IPV and sexual abuse (14, 15). A focus on women does not deny violence against men. In 1996, violence was declared as major public health problem (15). However, women are usually exposed to the most severe and long lasting violence (15) and the perpetrators are often current or former intimate partners.

WHO state that 30 % of women worldwide have been exposed to physical and/ or sexual violence by intimate partner sometimes during life (2). In a Norwegian prevalence study from 2014, 14.4% of the participating women reported less severe physical violence and 8.2% had been exposed to severe physical violence from an intimate partner/ex-partner (16). A pregnancy does not protect women from violence and the prevalence indicates that clinicians will meet women that are or have been exposed to IPV. Only one pilot project has asked about violence during antenatal care in Norway (11). Among 451 women 1.8% were exposed to violence during the pregnancy (11). In other studies that have asked pregnant women regarding violence, between 3-5% have been exposed during the last 12 months (17-19). The Norwegian studies were not facilitated for minority populations hence a knowledge gap regarding IPV in different immigrant groups exists (11, 16).

In this project, a holistic approach is used to understand IPV, were the interaction between structural, relational and individual factors is taken into consideration. This understanding, initially based on Bronfenbrenner's ecological model and adapted by WHO (15), will be used as a conceptual framework when exploring IPV. In addition, we will use the Transtheoretical model of change (20). Implementing change among patients and in a system is challenging and this model is adapted to the special case of intimate partner violence (20).

Known risk factors for violence against women are being young, single, drug and alcohol consumption, low economic status and a former history of abuse (6, 15). There is an agreement that gender power inequalities and hierarchical gender relations in societies increase violence, both the violence that takes place within families, marriage, dating relations and the non-partner violence (6). Although immigrant women are a heterogeneous group, factors related to their migration context may make them more vulnerable to IPV. This can be economic insecurity, language barriers, family separation, social isolating and discrimination (21). Intimate partner violence has personal, within family and socio-economical consequences (2, 15, 22):

Personal effect – women and children	<ul style="list-style-type: none"> <li>• Death and injury</li> <li>• Disease and ill-health, mental illness</li> <li>• Substance abuse</li> <li>• Poor social functioning, social isolation</li> <li>• Lost productivity</li> <li>• Poor school performance</li> <li>• Increased risk in performing violence as adults</li> </ul>
Within families	<ul style="list-style-type: none"> <li>• Children living with violence</li> <li>• Inability to work</li> <li>• Lost wages and productivity</li> <li>• Housing instability</li> </ul>
Socio-economical effects	<ul style="list-style-type: none"> <li>• Cost of services provided to those exposed to violence</li> <li>• Lost of productivity</li> <li>• Perpetuation of violence</li> </ul>

Table 1: Overview of possible consequences

Violence in pregnancy is associated with reproductive coercion, unintended/rapid repeat pregnancy, poor maternal weight gain, hyper-emesis, antenatal hospitalizations, miscarriage, bleeding, mode of delivery, preterm birth and maternal mental health problems (23). IPV has a significant impact in women's parenting abilities that can compromise their children's development (24).

### **Immigrant women in Norway**

Since the 1960's, there has been a rapid increase in the immigrant population in Norway (25). Today, immigrants and those born in Norway to immigrant parents constitute 15,6% of the total population. The five largest groups are from: Poland, Lithuania, Sweden, Somalia and Pakistan ([www.ssb.no](http://www.ssb.no)). A large number of immigrant women are in their childbearing years. In 2012 immigrant women contributed to 23% of the births in Norway (26). Somali women have the highest fertility rate with 3,9 children pr. woman (26). Some reproductive challenges are identified in different immigrant groups, such as increased risk of hyper-emesis, induction of labor, fetal distress, operative deliveries, preterm birth, small for gestational age babies and prenatal death (27-29).

### **Screening for violence during pregnancy**

The Norwegian governments decision about asking pregnant women about violence during antenatal care (8) is supported by guidelines from the UK (30). Antenatal care is recognised as an ideal “window of opportunity” to address IPV because this is a time when women are in regular contact with health care providers (31). Pregnancy is an important context for safety planning as child well-being and safety is a priority for many abused women (32). Women may also be motivated for change. Today, no standard instrument for screening exists. The new guidelines suggests some questions and they that clinicians talk about strategies to prevent violence with women that disclose violence (8). Barriers for implementation are the sensitive topic, lack of training and uncertainty about management after disclosure (33). A Norwegian study shows that the majority of midwives were positive to ask when properly trained (11).

The main recommended interventions for IPV in primary care settings involves questions about violence, information of safety-promoting behaviours, and referral to community resources (33, 34). Safety-promoting education includes a process that informs and empowers abused women by identifying behaviours they can adopt to increase safety and decrease exposure to violence (35). This is described as a helpful and preferred strategy among abused women to reduce violence (10, 36). Different safety-promoting behaviours include use of informal and formal network, legal aid, resistance and placating (37). Examples of concrete safety actions may include hiding money or establish a code with family and friends to ensure help when violence occurs. The safety behaviours promoted in our video will be based on the Safety behaviour checklist (10). We will include previous victims of abuse from all three groups in addition to experts to adapt the safety behaviours to the Norwegian setting for women from different cultural backgrounds in a digital format.

### **Relevance for patient care**

In summary, there is a strong rationale for developing and testing an intervention that help women increase their use of safety behaviours. Promoting safety behaviours may empower women and help them to take appropriate actions to ensure safety and well-being for themselves and their children and in the long term prevent harm. Developing and testing a tailored tool to reduce IPV is highly relevant and may give large benefits for the individual women and to the society at large. This project also aims to cover a knowledge gap regarding violence among minority groups (22, 38), and the project will ensure the participation of two large groups, Pakistani and Somali women, to gain further knowledge of IPV. Because of challenges in implementing questions about violence as a clinical practise (39, 40), both the screening/intervention and the professional development for midwives are planned as helpful actions for implementation. The screening and intervention are planned as accessible tools and if shown to be effective, they can easily be implemented in antenatal care in all of Norway.

### **Aim, hypotheses and methods**

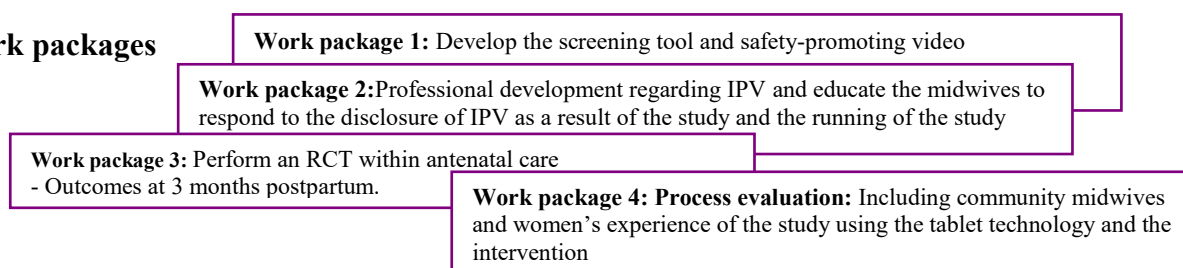
The overall main aim of the study is to reduce intimate partner violence through an intervention during pregnancy. We hypothesize that women who are randomized to an intervention that includes education about safety behaviours will use these behaviours and ultimately be less exposed to violence compared with women randomized to standard care. Their experience of the interventions and the experience of the community health staff will be assessed by qualitative interviews.

The objectives of this study are to:

1. Develop a screening tool for violence and intervention to increase safety behaviours, culturally and linguistically adapted to Norwegian, Somali & Pakistani women (WP1).
2. Increase the knowledge on IPV and skills in enquiring and caring for women in antenatal care. Educate health staff in the use of a screening tool for violence and safety instrument (WP2)
3. Assess the level of IPV during pregnancy before and after intervention among Norwegian, Pakistani and Somali women (WP3).
4. Assess the effect of the intervention through a randomized controlled trial (RCT) (WP3).
5. Evaluate midwives experience of the study with the tablet technology (WP4).
6. To explore women's (users) experience of the intervention (WP4).

The "Preparing for the worst" study is planned as a randomised trial in antenatal care to test the effectiveness of a tablet-based intervention that promotes safety behaviour and it will include four work packages:

### Work packages



#### Work package 1: Develop the screening tool and safety-promoting video

Using tablet technology is a new and original approach in antenatal care. The screening tool for IPV and other questions for the baseline data collection will be developed for use on the tablet. The tablets allow uniformity of the data-collection so comparison within and between the groups can be done. Appropriate language will be ensured (Norwegian, English, Urdu, Somali). The final screening and will be carried out using tablet technology and Audio Computer Assisted Self Interviews (ACASI). A-CASI tend to yield higher rates of IPV disclosure (41).

The safety-promoting video which women randomized to this option will view right after the A-CASI, will consist of digital storytelling: combining narrative with digital content, including images, sound, and video that focus on IPV and safety behaviors (10). Digital storytelling has been advocated as a strategy to empower people and facilitate learning (42). The video will be culturally and linguistically adapted to Pakistani, Somalian and Norwegian women. The development of both the screening tool and the safety-promoting video will be based on several recourses: User participation as describe in chapter 6, IPV in primary care guidelines, systematic reviews of health-care based interventions, meta-syntheses of qualitative studies and studies documenting inter-cultural communication.

#### Work package 2: Professional development for community- midwives and health visitors regarding IPV

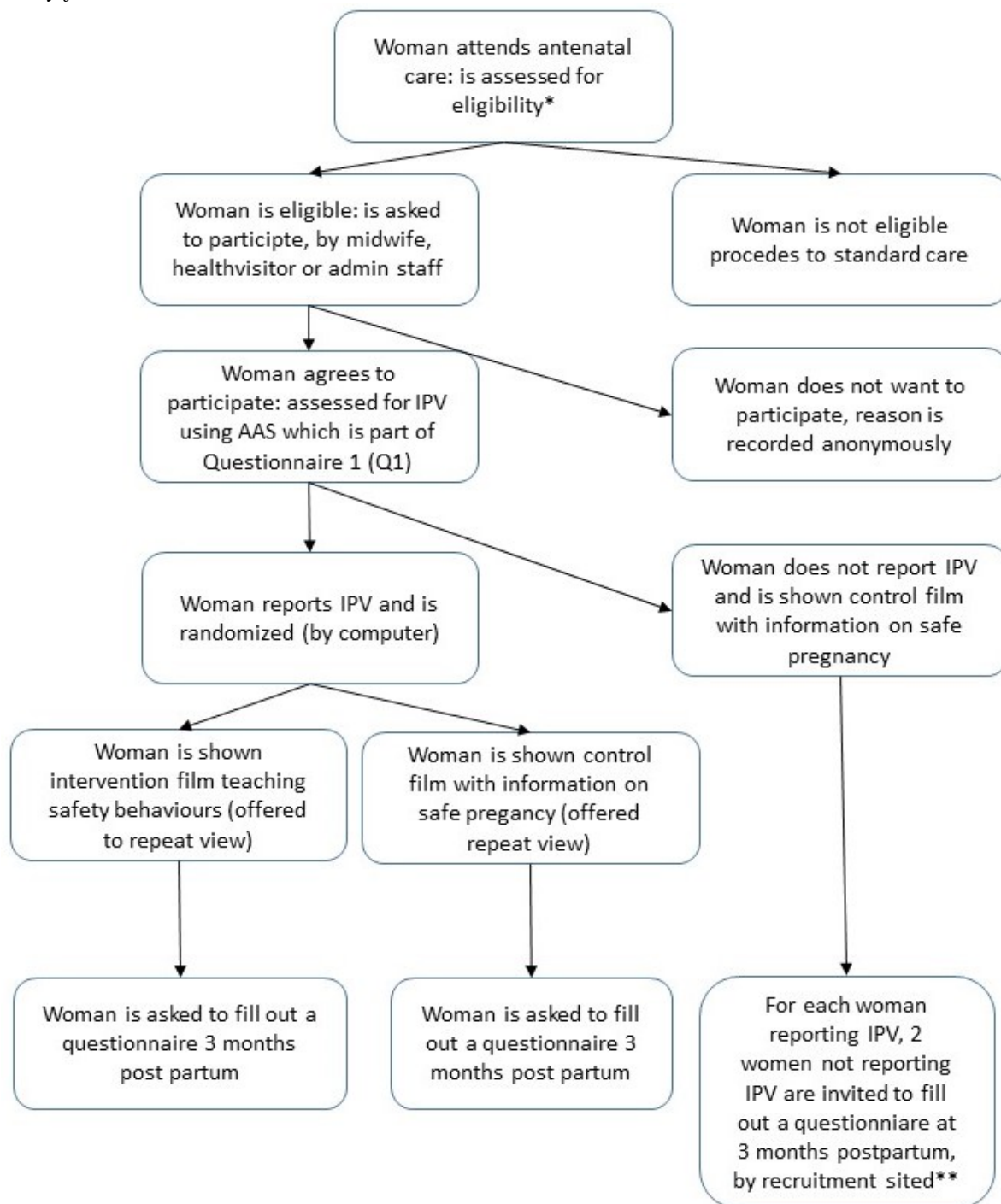
We will organise meetings and short courses for community midwives and health visitors where other community services, which provide care for women experiencing violence will be invited. The aim of these meetings is to establish/improve/confirm contact and collaboration as well as increase health professionals knowledge about IPV. We will provide community midwives and health visitors with materials regarding IPV. For this purpose we will use local information (for example phone numbers to nearest crisis centre), material provided by the Health Directorate and some of the material by WHO (8). We will use interactive teaching methods such as role-play to increase health professional's expertise in asking about violence. Other members of the community health team involved in this care will be part of the courses, i.e. social services, police etc.

#### Work package 3: Perform a randomized controlled trial (RCT) within antenatal care.

This RCT will take place in midwifery antenatal care in Oslo, Drammen and Akershus. For the study, the women will use the tablet with a screening tool for violence. Women disclosing IPV in standard care will receive information video about general services for a safe pregnancy on the

tablet including referral to a website with info on IPV. Exposed women in the intervention group will receive information about violence and the developed safety-promoting video on the tablet. Women who screen negative will get general information about a safe pregnancy on a small card

*Study flowchart:*



**Inclusion /exclusion criteria:** Pregnant women above 18 years at the participating midwifery offices: Women that understand Norwegian, English, Urdu or Somali. We will exclude women who are not possible to be screened alone and women who do not have the mental or physical capacity to answer the questions.

**Participant selection:** The rationale for choosing the specific immigrant group is that Pakistani and Somali communities are among the largest immigrant groups in Norway. They have a high fertility rate, 3.9 and 3.0 respectively (26). Both countries of origin have patriarchal norms that may permit

IPV. In addition, Somali immigrants are regarded as a group with potential previous exposure to interpersonal violence due to the prolonged conflict situation in Somalia (43).

**Sample size:** To detect a difference of 20% in the use of safety behaviours at 3 months post-partum (90% power,  $\alpha$  5%, two sided) we need to include 150 women, 75 in each group. Because of the nature of the intervention women cannot be blinded to the intervention. Midwives will be blinded to which intervention women receive.

**Baseline data collection:** At baseline, all participants will be asked to answer socioeconomic and demographic questions, a quality of life instrument, questions regarding current health and questions about integration using Audio Computer Assisted Interview at the study site. In addition, they will be screened for violence with a modified version of the Abuse Assessment Screen (AAS), a five-item screening tool created to detect violence against pregnant women (44), adapted to this study. Women who screen positive for abuse will be asked to complete the Composite Abuse Scale (Revised) Short form (CAS<sub>R</sub>-SF) (45), an instrument include 15 items regarding physical, emotional and sexual violence and questions about safety behaviors, based on the Safety Behavior checklist (10) that originally consist of 15 questions about safety behaviors,

**Outcome measurements:** The primary outcome is the adoption of safety-promoting behaviours three months post-partum measured by an adapted Safety Behaviour Checklist. We have selected a short follow-up period based on literature that documents high rate of violence reoccurrence and increased vulnerability in early post-partum period (46). Quality of life is the second primary outcome, measured using WHO brief version of QOL. Secondary outcome measures are: Prevalence of IPV, symptoms of depression, maternal outcomes such as mode of delivery, birth experience and pain relief during labour. For the neonate we measure birthweight and breastfeeding. The follow-up after delivery will be administered at the public health station at the second appointment with the public health nurse in the vaccination program. Clinical and medical data will be self-reported by the participating women. All women that screen positive at the AAS will be followed up in addition to 2 controls per woman disclosing IPV. This will ensure that the women's answer is confidential and ensure blinding for the recruitment sites, as they are informed that not only women reporting IPV but in addition a randomly selected number of women not reporting IPV are asked to fill out Q2

**Data management and analysis:** All the identifiable data (name, phone number) and study number will be kept in a register for use during follow up study. This register will be locked up with access only available to the project leader. Other data, collected on the tablet, will be transferred to a secure server accessible only to the project group. Descriptive statistics (means, standard deviations, frequencies and percentages) will be used to describe the women. Differences between groups will be investigated using independent t tests and chi-square tests/Fisher's exact test when appropriate. We will look at mean numbers of safety behaviours and determine changes over time by using repeated measure analyses of variance (RM ANOVA).

Work package 4: Process evaluation: evaluate community midwives and women's experience of participating in a study using tablet technology for screening for IPV and teaching safety

The process evaluation will investigate the extend to which the intervention was delivered as intended, what worked and what did not work. Semi-structured, qualitative interviews will be performed with a purposively selected sample of midwives. The interviews will be audio recorded, transcribed and reviewed by the work package leaders for emerging themes, sub-themes and codes. Themes that emerge will be discussed in the regional research group. The same research process will be used to explore women's experience of screening and the intervention.

### 3. Project management, project management, organisation and cooperation

Table 2 Overview over the involvement in the different people/groups in the different tasks

	WP1 01.05.16–01.06.17	WP2 01.09.16–01.12.17	WP3 01.12.17–31.12.18	WP4 03.03.19–01.05.21
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<b>Staff involved</b>	Mirjam Lukasse, Josef Noll, Lena Henriksen, Lisa Garnweidner-Home	Mirjam Lukasse, Lena Henriksen, Kirsten Jagmann, Tine Aaserud, PhD students	Mirjam Lukasse, Lena Henriksen, PhD students, Master student in midwifery.	Lisa Garnweidner-Holme, Mirjam Lukasse, Lena Henriksen PhD- and Master student(s)
<b>Expert input</b>	Berit Schei, Angela Taft, NAKMI	Social services, Police, RVTS, Crisis Shelter staff	Research assistant with technical expertise (UNIK)	Berit Schei, Angela Taft
<b>User involvement</b>	Somali, Pakistani & Norwegian women	Community midwives	Community midwives	Study participants, Community midwives,

The project leader is **Mirjam Lukasse**, professor and midwife, currently principal investigator of a project funded by Norwegian Research Council also addressing immigrant women (47). The project is a RCT that successfully use App-technology and it is in the recruitment phase.

Lukasse was the project coordinator of Bidens, an International study on violence against pregnant women (4, 18). Lukasse is currently main supervisor for a PhD student in Nepal where a similar project is in progress, using A-CASI. Lukasse was main supervisor for **Lena Henriksen** who did her PhD on sexual violence against women (3, 48). Professor **Josef Noll** will participate as an expert on information and communication technology and patient safety. Professor Noll is collaborator in the project where Lukasse is project leader (47). This project uses tablets to collect data in the same languages proposed in this study. Noll has vast experience with developing technical solutions (47, 49). Midwife and MPH **Tine Aaserud** has long experience from antenatal care and a master in health and empowerment. She is on the board of The Norwegian Midwifery association. She has an extended network among community midwives will be crucial in the recruitment of the health centres. She was in the external research group for the new violence guidelines (8). Postdoctoral fellow **Lisa Garnweidner-Holme** is an expert regarding cross-cultural communication, user-involvement and qualitative research methods and is currently a part of a large-scale project using App technology in antenatal care (47). Public health nurse and MPH **Kirsten Jagmann** from the Regional resource centre for violence, traumatic stress (RVTS) works with professional development and implementation of the violence guidelines. She has work and research experience regarding different immigrant groups in Norway (50).

**Nationally** the project group will include obstetrician/gynaecologist, Professor **Berit Schei**. She has vast experience in research on violence and is currently principal investigator of a large-scale global project on violence among pregnant women including Nepal and Sri Lanka. She was also member of the steering committee of WHO multi-county study on violence against women. In addition, we have established contact with different collaborators that will be an advisory reference group: **NAKMI** (The Norwegian Centre for Minority Health Research) who will advise us on cultural aspects, **The Crisis Shelter Secretariat** with input from social workers and legal advisors and **RVTS** with their expertise on violence and its consequences.

Professor **Angela Taft** from the Judith Lumley Centre at La Trobe University, Melbourne will be an **international expert advisor and collaborator**. The Judith Lumley Centre is a centre for public health research in the field of mother and child and they have conducted RCTs in primary and antenatal care regarding IPV (39,51). A stay of 4 months by the postdoctoral student and shorter visits by the project leader and PhD student are planned thus strengthening our collaboration with Professor Taft and her unit. Professor Taft will visit Norway for teaching and supervision.

This project has called together a core group of experts in the field of IPV among pregnant women. It hopes to contribute to the establishment of a regional network.

### Feasibility

In Norway, almost all pregnant women attend antenatal care, a well integrated part of the public health program. Traditionally, the research burden regarding pregnant women is in a hospital setting, not in primary care. This makes it feasible to use primary care as the setting for this project. This project may help community midwives address some of the problems in implementing violence questions as a good clinical practice. Hence, the clinicians are motivated to help in the

recruiting process and the implementation of the study. Lukasse, Henriksen and Aaserud are midwives with long clinical practice and good knowledge of the Norwegian setting that will promote collaboration with the clinicians.

Lukasse and Henriksen have informed community midwives about this possible new project at formal and informal meetings, and received very positive responses. Information about the planned project has been sent to all community health stations in Oslo. The research group consist of researches with comprehensive experience in initiating, leading and successfully finalizing similar projects. RVTS, part of our advisory reference group, works with different municipalities regarding how to ask pregnant women about violence and will be a future collaborator in planning the implementation of the screening-tool.

### **The PhD students**

HiOA established a PhD for health professionals in 2012. The research department at HiOA provides all necessary courses and a stimulating environment for PhD students. There are several midwife-PhD students already at the department of Nursing and Health Promotion. The midwifery education at HiOA has their own research group that has regular meetings including PhD students. Close collaboration with Professor Schei will allow for meetings with PhD students from NTNU and HiOA. Schei and Lukasse have collaborated in this way before. Henriksen will be main-supervisor for the PhD students with the support from Lukasse as co-supervisor.

### **Budget**

Costs and plan for finances are entered in the electronic application form. As Lukasse is project leader for a project using electronic tablet to collect data and translation to Urdu and Somali we have a realistic idea about the costs for this. Collaboration with users of the services and community health workers is central in this project which is reflected in the costs for meetings. We aim at strengthening international collaboration resulting in travel expenses. We apply for NOK 9 326 000 from the research council, HiOA will fund NOK 2 696 000 of the project. ExtraStiftelsen finances part of this project by funding a post doctor, which within this budget results in NOK 1 710 000.

## **4. Strategic and central perspectives**

**Compliance with strategic documents:** Both national and international strategic document supports a study that aims at reducing IPV (5, 22, 38, 52). A white paper from 2013 (Report to Storting) points to the prevalence of IPV and to the importance of reducing IPV (22). The white paper was followed by an action plan for 2014-2017 (38). Interventions that target IPV and the knowledge gap regarding IPV in immigrant groups are some of the highlighted areas in these strategic documents (22, 38).

**Relevance to society** moved to chapter 6 as it is part of the specific issues of interest for this Call.

### **Effect on the environment**

As we will use electronic tablets to collect data instead of questionnaires on paper, we actually reduce the use of paper. Reduced violence will reduce the need for healthcare and so have positive economic effect on society. We see no other effects on the environment.

### **Ethical considerations**

The studies included in this project will follow the Helsinki Protocol (WMA Declaration of Helsinki at [www.wma.net](http://www.wma.net)). It will be sent to the Norwegian Regional Committees for Medical Health Research Ethics South East (REK) and Data Inspectorate for approval. WHO has suggested guidelines for researching violence against women: Putting women's safety first: Ethical and Safety Recommendations for Research on Domestic Violence against women (53) that will be followed. In cross-cultural research on violence researchers may be less familiar with the culture(s) and have a poorer understanding of the ways the research could cause harm. This project will include collaborators that have a deeper knowledge about cultural differences in order to prevent harm. Questions about violence are sensitive, but studies have shown that women are willing to answer



questions about abuse and they report meaningfulness about their participation in studies that includes questions about sensitive topics (54). All participants will get information about recourses in their community regarding violence. The community health services are equipped to care for women suffering from IPV who request and need help. Routines and procedures are in place. Our study should not add any risk. On the contrary, the extra education provided to midwives at the start of the study should enable midwives to access the resources available in the health services.

### **Gender perspective**

This project is in its very nature one for women, as we aim to reach pregnant women in antenatal care. It will benefit their children if they can live a safer life due to an intervention during pregnancy. As such, it will benefit both genders. There are few male midwives and health visitors in Norway and many female family doctors. Involving men in this project is a challenge. However, Professor Noll and our collaborator at NAKMI community doctor Arild Aambø are both a male.

## **5. Communication and dissemination**

### **Communication with users of the primary care services, professional groups and the public**

We will invite users of antenatal care to language specific meetings to inform them about the study. We will establish a website to publish results. We will present our results at seminars, meetings, conferences and use any opportunity to disseminate results. We will prioritize meetings with civic society organizations such as the Norwegian women's Public Health Association and violence against women campaign groups.

### **Scientific publications**

The project is expected to produce the following scientific papers (working preliminary titles):

1. Development of a culturally adapted screening tool and intervention to prevent intimate partner violence among Norwegian, Pakistani and Somali women. *Violence Against Women*
  2. Preparing for the worst – promoting safety behaviours in antenatal care among Norwegian, Pakistani and Somali pregnant women. A randomised controlled trial, protocol. *BMJ Open*
  3. Preparing for the worst – results of a randomised trial in antenatal care among Norwegian, Pakistani and Somali women in Norway we will try *The Lancet* but expect to publish in *BMJ Open*
  4. Midwives' experience of participating in a study using tablet technology to screen for IPV and tablet technology to teach women safety behaviours *Midwifery*
  5. Women's experience of screening for violence *Journal of Sexual and Reproductive Health*
  6. Women's experience of receiving an information video promoting safety behaviours *Birth*.
- Depending on recruitment and results we will publish separate papers on the results on Pakistani, Somali and Norwegian women, in particular for the qualitative papers on their experiences.

## **6. 1. User participation**

Users are involved in all phases of the project (see table 2, page 6). Pregnant women, community midwives and members of the reference and research group will be involved in the development of the intervention content by demonstration of prototype. They will also be asked about the adapted screening tool for violence and interviewed about which actions that increase safety and participate in the digital storytelling. Our reference group will ensure contact with appropriate, key informants. The reference group consisting of crisis centre advocates will be consulted to obtain knowledge about safety-promoting behaviours and existing services and NAKMI will contribute regarding cross-cultural adoption of the intervention.

## **6.2. Anticipated benefits to users and society at large**

We believe victims of violence will have a greater chance to experience a reduction in violence through the safety behaviours learned and applied and improved care, as health professionals receive extra skills and knowledge. Violence against women has a negative effect on women themselves, their families, children and society as a whole. Women experiencing violence are more likely to have poorer health, become isolated, have sick leave, and require medical care. IPV may be observed by children and may lead to violence against the children in the family. This may result in

poor health for children, absence from school, poorer education and long-term effects for these children. Therefore is breaking the circle of violence of benefit for society as a whole.

The screening tool and videos developed can easily be implemented in other communities across the country and may even be useful for Somali and Pakistani women outside of Norway. The safety-promoting video will be made available for everybody through a website, which also instructs women how search without leaving a search-log for their own security.

Health staff will experience a greater competence and confidence in approaching the topic of violence and handling positive answers. Women will benefit from health professionals who enquire in an appropriate way about violence.

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